

WHAT IS CLAIMED IS:

1. A control valve assembly comprising at least two control valves, wherein each control valve comprises a valve blade that is assembly injection molded into a valve frame, said control valves having a common axis of rotation, and a force transmitting shaft which shaft connects the valve blades with one another along said common axis of rotation, wherein said shaft comprises a component for increasing torsional rigidity of the control valve assembly.

2. A control valve according to claim 1, wherein said control valves are arranged in air intake ports of an internal combustion engine for throttling airflow therethrough.

3. A control valve assembly according to claim 1, wherein said valve blades are supported on either side in the valve frame by bearing members, at least one of said bearing members having a conical configuration which convergingly tapers toward an installation opening or socket in the valve frame.

4. A control valve assembly according to claim 1, wherein the valve frames carry positioning pins that engage in corresponding holes in seats for the control valve assembly.

5. A control valve assembly according to claim 4, wherein said positioning pins engage in said holes with an interference fit.

6. A control valve assembly according to claim 1, wherein the torsional rigidity increasing member comprises an embedded insert around which the shaft extension is molded.

7. A control valve assembly according to claim 1, comprising a plurality of valve modules each comprising at least one shaft seat and at least one control valve.

8. A control valve assembly according to claim 7, wherein a first valve module comprises an injection molded shaft extension which is connected through a shaft lug in a rotationally secure manner with a drive shaft seat of an adjacent, second valve module so that the first and second valve modules rotate together as a unit.

9. A control valve assembly according to claim 8, wherein an axial play compensating mechanism is provided at the connection between the shaft lug and the shaft seat.

10. A control valve assembly according to claim 1, wherein said control valve assembly comprises a one-piece actuating shaft onto which the control valve blades are molded by assembly injection molding.

11. A control valve assembly according to claim 10, wherein said one-piece actuating shaft is torsionally rigid.

12. A control valve assembly according to claim 10, wherein the actuating shaft is completely embedded within the assembly-injection-molded valve material.

14. A control valve assembly according to claim 10, wherein the assembly-injection-molded valve blades are formed on portions of the actuating shaft having a non-circular outer contour.

15. A control valve assembly according to claim 14, wherein said non-circular contour comprises a crimped area of said actuating shaft.

16. A control valve module comprising a plurality of interengaged control valve assemblies according to claim 1.